

## PSYCHE.

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## On an Appendage of the male Leucarctia acraea.

Having oceasion recently to examine the male genitalia of this species, I was surprised, on pressing the abdomen forcibly to show the parts, to see project from between the lower part of the horny base of the claspers and the flap of skin which in most species is closely adherent to it, two long, singular organs, which I believe have not before been noticed.

They spring from the base of a pouch which is concealed between the last segments of the body, and formed by the continuation of the external skin. When fully distended they are symmetrical, and curve gently downward and outward in the shape of a horn. They are each about 20 millim. in length, and at the base 2 millim. in diameter, gradually diminishing in thickness to the apex, which is obtuse.

The color of these organs and of the pouch is pale yellow, and the former are clothed with long (3 millim.) fine, sparsely scattered hair. Their distention is accomplished by the muscular contraction of the walls of an internal sac with which they communicate, and which forces into them a yellow, strongly scented fluid. They have no external outlet, nor is this fluid secreted through the pores of the pouch; its only function in connection with them seems to be to fill and expand them.

Although I have examined a large number of living specimens, only one gave me the opportunity of watching the voluntary protrusion of this appendage. The operation was interesting. The abdomen was slightly contracted, opening the orifice of the pouch, from which projected two tufts of black fine hair; as the fluid forced its way out, the hairs, commencing at the base, separated and stood erect; the empty skin, bearing the constantly diminishing tuft, was quickly

pushed on. The latter soon became a mere pencil, and when the skin was entirely filled it had disappeared. It remained distended a few seconds, and was then withdrawn; this was repeated several times in rapid succession.

After discovering these organs in acrea, I examined every species of Lepidoptera captured, in the hope of finding analogous ones in them. I was successful in the following three species: Danais erippus Cr., Agrotis plecta Linn., and Euplexia lucipara Linn. In the former the organs, though much smaller than in acrea, were similar in form, and also clothed with scattered fine hair. But their position was very different; they were situated above, and one on each side of the anal parts, instead of beneath them. In plecta and lucipara they were in precisely the same position as in acrea, but entirely dissimilar in form. In plecta they consisted, when distended, of a single, short (1.5 millim.) protuberance, thickly clothed and concealed by a dense bush of fine radiating hair; it returned into the abdomen in the same manner as in acrea.

This structure is peculiar to the male sex, and is presumably connected in some way with the act of generation. As all the species which possess it are common, it is to be hoped that next season observations will be made upon it, which will help to determine its true function.

H. K. Morrison.

## List of Coleoptera collected in the vicinity of Cliftondale, Mass., June 12, 1873.

(Continuea from page 18.)			
4378.	Eurypogon niger Mels.	4576.	Collops tricolor Say.
	Usually rare, but taken	4618.	Pseudebæus oblitus Lec.
	quite abundantly this season.	4726.	Thanasimus nigrifrons Say.
4388.	Cyphon pallipes Lec.	4740.	" thoracicus Oliv.
4390.	" piceus Lec.	4754.	Hydnocera humeralis Say.
4396.	" collaris Guér.	4810.	Eucrada humeralis Mels.
4450.	Photinus corruscus Linn.	4927.	Asemum mæstum Hald.
4453.	" nigricans Say.	4937.	Criocephalus australis Lec.
4457.	" angulatus Lec.		Rare in this vicinity.
4466.	" marginellus Lec.	4948.	Phymatodes variabilis Fabr.
4499.	Podabrus rugosulus Lec.	4952.	" varius Fabr.
4520.	Telephorus carolinus Fabr.	4960.	Callidium antennatum Newm.
4523.	" rectus Mels?	5047.	Molorchus bimaculatus Say.
4533.	" fraxini Say.	5135.	Neoclytus erythrocephalus F.
4536.	" rotundicoltis Say.	5141.	Clytanthus ruricola Oliv.
4548.	" bilineatus Say."	5236.	Leptura lineola Say.
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